

From: "Sonich-Mullin,Cynthia@epamail.epa.gov" <Sonich-Mullin.Cynthia@epamail.epa.gov>
Date: Tuesday, December 4, 2012 4:20 PM
To: Christopher Portier <cip7@cdc.gov>
Cc: "Gilliland,Alice@epamail.epa.gov" <Gilliland.Alice@epamail.epa.gov>
Subject: HF DW Study - Example Homeowner Reports

Hi Chris,

It was good to reconnect with you.

As promised, I am sending examples of the homeowner reports we have prepared for our Hydraulic Fracturing Drinking Water Study:

I am providing an example for each of our two locations in Pennsylvania/Region 3: Bradford County (NEPA) and Washington County (SWPA).

These will give you a snapshot of the analytes and information we are collecting and are prepared to share with the individual homeowners.

For each location, we have completed two rounds of sampling.
The total number of wells on which we are reporting is as follows:

NEPA Round 1 = 39
NEPA Round 2 = 30
SWPA Round 1 = 18
SWPA Round 2 = 17

As we discussed, we are comparing these data against the EPA Primary MCL, where applicable.
The MCLs are provided in these tables, however, I have asked Dr. Alice Gilliland to provide you with these same datasets indicating where exceedences have occurred.
This information will be provided to you quickly.

Alice is coordinating all HF activities of our laboratory.
Please work directly with her if you have any questions or need additional information.
She can be reached at 513-569-7852.

As we discussed, we would like to work with ATSDR in transmitting this information to the homeowners and specifically, would like to rely on your staff for input and communication regarding any health effects implications of this information and to address any questions from the homeowners.

I would be happy to discuss this with you further and look forward to the prospect of working together on this effort.
Thank you for considering our request for assistance.

Regards,
Cindy

Cynthia Sonich-Mullin
Director
National Risk Management Research Laboratory
Cincinnati, Ohio 45268
Ofc: 513-569-7923
Cell: 513-560-5043



Fw: Haney trial

Robert Helverson to: Lora Werner, Karl Markiewicz, Matt & Lora Werner

01/31/2013 10:36 AM

FYI

Robert H. Helverson
Regional Representative
Agency for Toxic Substances and Disease Registry (ATSDR), Region 3
Department of Health and Human Services
1650 Arch Street (3HS00)
Philadelphia, PA 19103
(215) 814-3139 (Office)
(215) 814-3003 (Fax)

----- Forwarded by Robert Helverson/R3/USEPA/US on 01/31/2013 10:35 AM -----

From: Angela McFadden/R3/USEPA/US
To: "Robert Helverson" <Helverson.Robert@epamail.epa.gov>
Date: 01/31/2013 09:34 AM
Subject: Haney trial

Angela McFadden
U.S. EPA Region 3
Water Protection Division
1650 Arch Street (3WP00)
Philadelphia, PA 19103

215-287-7823 cell
215-814-2324 desk
215-814-2301 fax

From: "Robert Donnan" [redchief7@verizon.net]
Sent: 01/30/2013 08:24 AM EST
To: "Robert Donnan" <redchief7@verizon.net>
Subject: when the chips fall...

Yesterday took me back to the **Washington County Courthouse** to follow the "alleged" contamination case of water wells near a Range Resources centralized impoundment dam in Amwell Township, Washington County, Pa.

File photo: Washington County Courthouse (lower right)



It is always difficult to hear in that large courtroom, so Judge Debbie O'Dell Seneca offered members of the BAR the opportunity to sit in the front spaces jurors and witnesses usually occupy. I counted **17 attorneys** of which 3 were on the home team with **Kendra Smith** doing a spectacular job of handling all 4 hours of proceedings, only spelled by one 10-minute break. Kendra's husband John, who is leading the charge on the Act 13 zoning overthrow, was also present in the courtroom. Only one of them could present the entire case.

File photo: Range's Yeager Impoundment

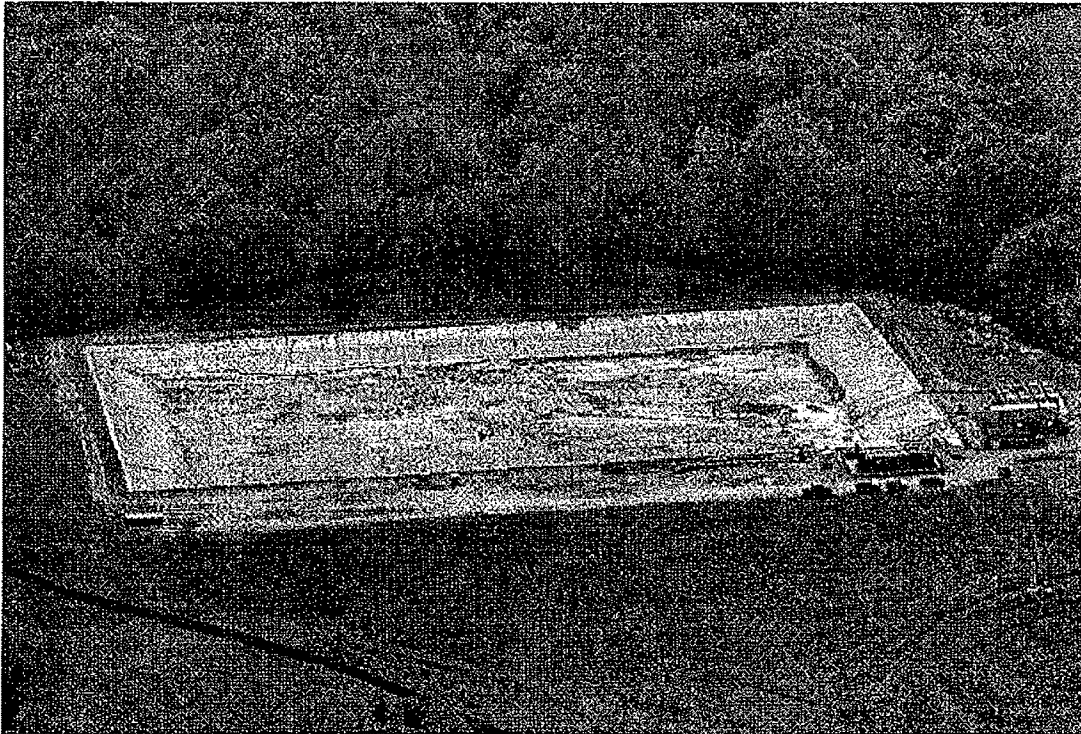
With the extreme import of this case, and the string of **high-profile corporations** lined-up in front of the judge, I was shocked there weren't more reporters, as well as supporters, present in the courtroom. I counted less than a dozen people in the audience with that count including myself and two reporters. Freelancer **Eliza Griswold**, who wrote an earlier story (linked below) on this case for the New York Times, was one of the reporters present.

[http://www.nytimes.com/2011/11/20/magazine/fracking-amwell-township.html?_r=2&pagewanted=all&](http://www.nytimes.com/2011/11/20/magazine/fracking-amwell-township.html?_r=2&pagewanted=all&_ga=2.111111111.111111111.111111111.111111111)

Fortunately, the Observer-Reporter's court reporter submitted a story in today's newspaper for the locals to read. It's valuable for them to see something other than the typical Range spin, "Drilling is just the beginning" or their **30 to 40-foot long banner** at the Pittsburgh airport blasting out, "Economy... Prepare for Takeoff." Range's lawsuits against townships in our area just got new legs, with them now suing Robinson Twp. (..again maybe?) They always seem to **prefer hardball to perestroika** when their bullying doesn't work, even though their psy-ops team might report differently to you. Depends which way the wind is blowing I guess.

File photo: Range working on another impoundment in Washington County last

year (Yes, those specks are men down in there...)



Back to the court case: The list of sick children, **healthy dead horses** (first time you saw those two words together?) and sick and dead dogs is too detailed to report here, but these families have been living a bizarre sort of arsenic and rash hell. You will find an earlier story about the Voyles, submitted by Eric Belcastro, linked below.

<http://www.marcellus-shale.us/Beth-Voyles.htm>

Stacey Haney is a nurse and all too knowledgeable about the many illnesses she and her family have suffered over past years... trouble is, they didn't know what was wrong with them at first, until they finally put two and two together. By then, her 'healthy as a horse' teenage son was seriously ill. In a long string of tragic events there was the infamous **Mother's Day incident** when Range treated the Yeager impoundment with some sort of skull & crossbones nasty-ass chemical (which wasn't properly reported when used) and shortly thereafter the electricity shutdown to the mixers and aerators submerged in the 13-million gallons of rusty flowback. **RED ALERT!** This allowed hydrogen sulfide fumes to form and engulf the surrounding area, leading to instant illness for those even just driving by. Maybe this moniker would be more appropriate, "**Range... we make holidays special.**" Remember when Range flared the Best Pad wells and caught the pit liner on fire behind June Chappel's house Labor Day 2009?

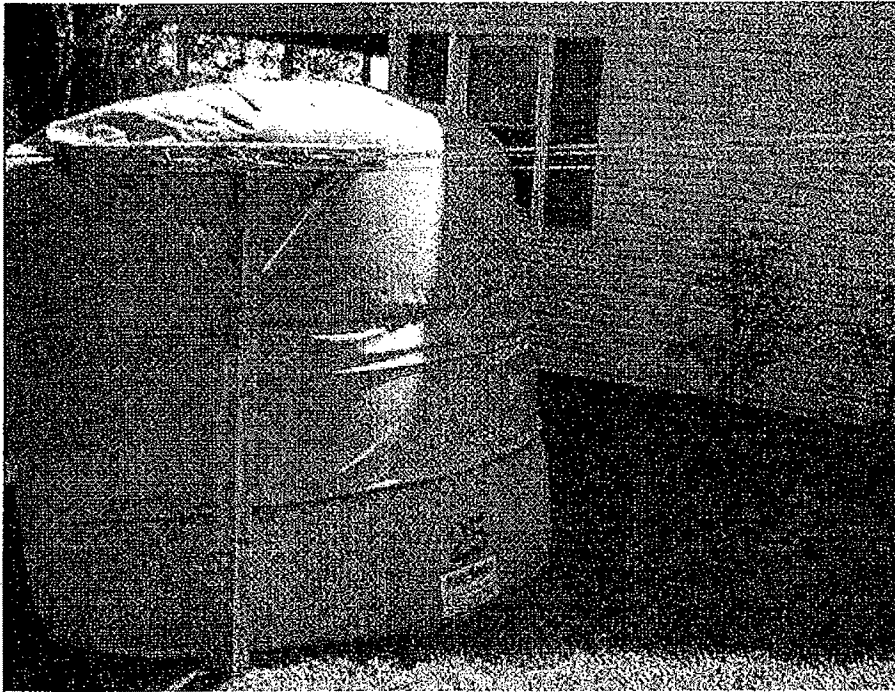
Labor Day photo: Fire Department putting out the pit liner fire at Range's Best

Impoundment Dam behind June's house (Photo credit: June Chappel)



Finally, a couple more take homes for you... it is interesting that as much as these gas production companies stick together when they are putting their 'plays' together, how fast they **abandon each other** when the chips start to fall... much of their defense yesterday sounded more like abandonment of Range. A bizarro take home for me was that the same attorney who represented TestAmerica (well water testing company) early in the hearing represented **Halliburton** later on. And one final important point is that the incomplete water test results that Range was able to selectively print from the TestAmerica website were used by the Pa. DEP to deny at least one of these families replacement water via a water buffalo. I'll let Linda Metz tell you the rest of the story in her article below...

August 10, 2011 file photo: Water buffalo next to the Haney residence



+++++

Range denies intentionally providing inaccurate water testing results

Jan 30, 2013 - Range Resources denied Tuesday it intentionally provided inaccurate water testing results to three Amwell Township families who attribute their health problems to drilling activity near their homes. Washington County President Judge Debbie O'Dell Seneca heard preliminary objections in the 182-page lawsuit that was filed by attorneys John and Kendra Smith on behalf of Stacey, Harley and Paige Haney; Beth, John and Ashley Voyles; and Loren and Grace Kiskadden.

The lawsuit claims Range knew its Marcellus Shale gas development operation on the Yeager farm on McAdams Road in Amwell Township had contaminated the groundwater with chemicals from a leaking drilling waste pit and a 3 million-gallon hydraulic fracturing fluid flowback impoundment as early as November 2010. In addition to Range, the lawsuit names Gateway Engineers, New Dominion Construction, Red Oak Water Transfer, Terrafix Environmental Technology, SKAPS Industries, Engineered Synthetic Products Inc., Microbac Laboratories, Multi-Chem Group, Universal Well Services, Halliburton Energy Services, Saxon Drilling, Highland Environmental, EAP Industries, Test America and engineers Carla Suszowski and Scott Rusmisl.

<http://www.observer-reporter.com/article/20130129/NEWS080101/130129176>

>>>>>><<<<<<

MY COMMENT BELOW THE STORY... LEAVE ONE OF YOUR OWN!

01/30/13 at 07:31 AM

Good to see the O-R following this important story since there are so many of these Range Resources impoundments scattered throughout our Washington County, one that county tourism can now tout as 'The Fingerlakes Region of Pennsylvania.' Only one problem, most of these 'lakes' get converted from holding regular water to rusty-looking toxic flowback from surrounding frack jobs. These wastewater pits

not only hold thousands of gallons of frac chemicals that were pumped downhole, but also contain Mother Nature's own toxic blend of flowback heavy metals, BTEX and radioactive (Ra226) fluids. If Corbett's legislature's ACT 13 stands as written, you could have one of these humongous pits in your backyard, even if you live in an upscale neighborhood. Finally, one correction to this story... this Yeager impoundment, like the ones Range continues to build, is the size of the Steelers football field and holds 13-million gallons of wastewater, not 3-million as reported. Range just built a new one in Donegal Township called the Hibbits Centralized Impoundment Dam in a HQWWF watershed (high quality warm water fishery). Let's just hope it doesn't leak.

+++++

"Spilling is just the beginning"

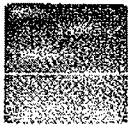
***** ATTACHMENT NOT DELIVERED *****

This Email message contained an attachment named
image001.jpg
which may be a computer program. This attached computer program
could
contain a computer virus which could cause harm to EPA's
computers,
network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses
introduced
into the EPA network. EPA is deleting all computer program
attachments
sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate,
you
should contact the sender and request that they rename the file
name
extension and resend the Email with the renamed attachment.
After
receiving the revised Email, containing the renamed attachment,
you can
rename the file extension to its correct name.

For further information, please contact the EPA Call Center at
(866) 411-4EPA (4372). The TDD number is (866) 489-4900.



Fw: Mr Kiskaden's metal results /Yeager (for internal use only)

Lora Werner to: Angela McFadden

11/02/2012 02:53 PM

Cc: pomales.ana, helverson.robert, markiewicz.karl

Hi, Angela

Ana reviewed the results for Mr Kiskaden as summarized in the letter from the law firm to PADEP that you shared, and I discussed this info with Karl. As Ana summarizes below, none of the results were above health-based comparison values (CVs) except for cobalt, which was higher than a screening value for a child. We don't have screening values for silicon, tin, or titanium. As far as the silicon results go, the concentration in his water is similar to the range seen in the historic (pre-EPA) Dimock samples, and is many times lower than the mean daily intakes of silicon identified by the FDA Total Diet Study, so we don't expect it to be a level of public health concern (note we have very little info on children's exposures and silicon, however).

So, no red flags for health concern from what we could see in this brief review.

Lora

Lora Siegmann Werner, MPH

Regional Director

Agency for Toxic Substances and Disease Registry (ATSDR)/Centers for Disease Control and Prevention (CDC), Region 3

Department of Health and Human Services

1650 Arch Street, 3HS00, Philadelphia, PA 19103

phone: 215-814-3141, fax: 215-814-3003

cell: 215-588-9778

email: lkwn9@cdc.gov

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----- Forwarded by Lora Werner/R3/USEPA/US on 11/02/2012 02:34 PM -----

From: Ana Pomales/R3/USEPA/US
To: Werner.Lora@epamail.epa.gov
Date: 11/02/2012 01:34 PM
Subject: Mr Kiskaden's metal Results

Hi Lora

Based on the results reported on the letter, cobalt concentrations were the only ones above a CV. There was a hit for 204 ppb and the child EMEG is 100. However, I wasn't able to screen for silicon, tin or titanium. The spreadsheet you gave me does not have CVs for those. Are these in any documents? Please let me know and I'll check.

Ana

Metal	Concentration mg/l	PPB				CV
Silicon	3.98	3,980		4,050	6,010	n/a
Tin	002.0 or 0.002?	2,000 (if it's 2, can't tell from report)				n/a
Titanium	0.002	2				n/a
Cobalt	0.204	204				Intermedia
Copper	0.003	8				Intermedia
Boron	0.245	245		180		
Aluminum	0.013	13				10,000 ppb;
Nickel	0.004	4				
Lithium	0.006	6				
Molybdenum	0.013	13				RMEG Child
Zinc	0.011, 0.008	11		8		

From: Andrew Hass [mailto:Hass.Andrew@epamail.epa.gov]
Sent: Thursday, June 21, 2012 4:59 PM
To: Torsello, Donald; Renu.M.Chakrabarty@wv.gov
Cc: Lazor, Nicholas; Walter Wilkie; Diana Esher
Subject: NGAAMI QAPP

Hi Don and Renu,

On the previous conf. call w/ PA/WV & EPA regarding MS it was asked to see the QAPP/monitoring plan for our initiative. I am attaching a copy of that to this email. It has not rec'd final signatures yet and is still considered draft. However, I am hoping signatures will be on it soon.

Please let me know if you have any questions. Thanks.

Drew



Re: Marcellus drilling - Residential Exposure Concerns

Troy Jordan to: Robert Helverson

03/20/2011 10:24 AM

cc: jordan.troy, "Karl Markiewicz", "Ana Pomaes", "Lora Werner",
Beers.Samantha

History: This message has been replied to.

Bob

Thanks for taking time last week to visit with me. I'm attaching my notes that I typed up from my visit with the Haney family. I will also send along the documentation the Haney's have provided to me once I get it scanned at the office. The Haney's are the family that have concerns about Arsenic exposure. The Haney's contact information is listed below.

Stacey Haney
1049 McAdams Road
Washington, PA 15301
412-997-6419



Haney Resident.docx

I have not done a write-up for the Hallowich,s concerns but I will provide their contact information as well. They have abandoned their home at this time and are currently renting a home until they can find a new permanent home. I spoke with Mrs. Hallowich on Friday and she would very much like to speak to you. Their contact information is below.

Stephanie Hallowich
412-965-7008
hallowich4@aol.com

Again, thanks for your assistance and I will pass along any data I can collect that may assist you.

Troy Jordan
Environmental Scientist
Environmental Protection Agency
Region III Wheeling Field Office
(304) 234-0267

Robert Helverson

Hi Troy, Thanks for meeting with us yesterday a...

03/17/2011 08:50:13 AM



**Robert
Helverson/R3/USEPA/US**
03/17/2011 08:50 AM

To jordan.troy@epa.gov, "Lora Werner"
<Werner.Lora@epamail.epa.gov>, "Karl Markiewicz"
<Markiewicz.Karl@epamail.epa.gov>, "Ana Pomaes"
<Pomaes.Ana@epamail.epa.gov>

cc

Subject Marcellus drilling - Residential Exposure Concerns

Hi Troy,

Thanks for meeting with us yesterday afternoon. As mentioned, I had received some info from CID about



Re: ATSDR Marcellus Shale air proposal and proposed locations table

Andrew Hass to: Lora Werner

10/31/2011 01:54 PM

Cc: CarolAnn Gross-Davis, Robert Helverson, Howard Schmidt, Loretta Hyden

History: This message has been replied to.

Thanks Lora.

Some points I got from our discussion last Friday.

Limitations: Howard, Lori and I put together a draft plan back in Mar/Apr of this year to look at VOCs and PM2.5. We now know that our sampling will be limited to the amount of canisters the Ft. Meade lab will be able to handle per week. In addition, travel \$\$\$ will be a limiting factor in how long we can monitor at those areas. There are some ways to minimize the travel \$\$\$ road-block, but there does not seem to be a way around the VOC lab capacity constraint. From what you and Bob described in our discussion w/ Diana, you have a limited amount of \$\$\$ to perform the carbonyl (and glycol?) monitoring. The amount of \$\$\$ to pay for sample analysis will be the limiting factor for the amount carbonyl (and glycol?) samples taken. With these limiting factors in mind, we need to determine, how much data is needed at a site in order to make a sound assessment of the air. Do we want 10 sites and collect 10 data points at each site?...or do we want 2 sites and collect 50 data points at each?...something else?...what is appropriate? This will determine how many sites we can collect ambient air quality data at. If the FT. Mead VOC lab can only analyze 20 canisters a week, then Howard, Lori and I have to plan on monitoring at "x" amount of sites that fits the lab's capacity for sample analysis.

Ownership of Data: Since ATSDR is paying for the carbonyl (an glycol?) part of the sample collection and analysis, ATSDR will be responsible for that data. The VOC and PM2.5 sample collection and analysis is paid by EPA so EPA will be responsible for that data.

Personnel support: EPA air monitoring personnel will be able to assist with carbonyl (and glycol?) sample collection when needed and ATSDR (mainly Bob) can assist EPA by collecting VOC and PM2.5 samples when needed. A discussion b/t both agencies will need to take place closer to sample collection to work out tentative schedules. I am not Carol Ann's boss so I don't want to say what she can/can not work on.

On a side note, I want to ask a question to get clarification. It was my understanding that ATSDR was going monitor at other type of locations besides the property of citizens who have serious concerns about the air quality and the negative health impacts their families have experienced since the extraction processes started. However in the attached monitoring plan, it was stated that, "Sampling is proposed for four residences surrounding an active Marcellus Shale natural gas compressor station, impoundment, and active drill pad." Is the plan to conduct monitoring for what is in the plan currently?...or is the plan a "draft" and where sampling will be conducted not set?

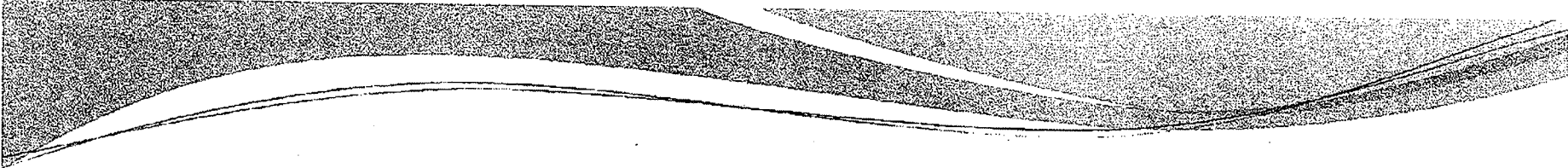
I attached a crude "tree" of the sampling as I saw it from our conversation. Please take a look and tell me if I am off in my thinking or if you have any edits/add-ins. I just want to make sure I am clear on what monitoring is being proposed.

Hope all is well.

Drew



marcellus sampling tree.pptx

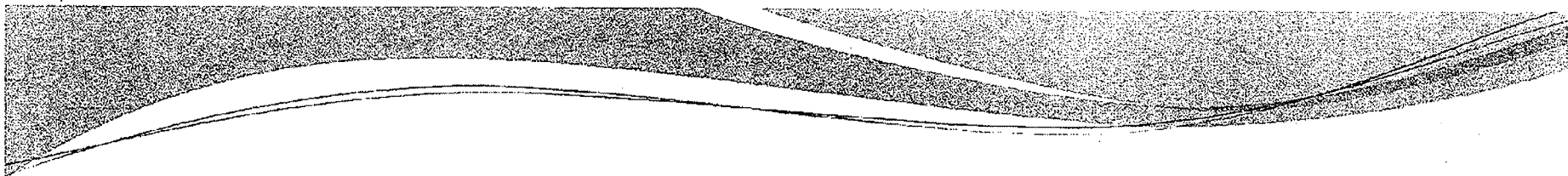


Updated Natural Gas Extraction Ambient Air Monitoring Plan

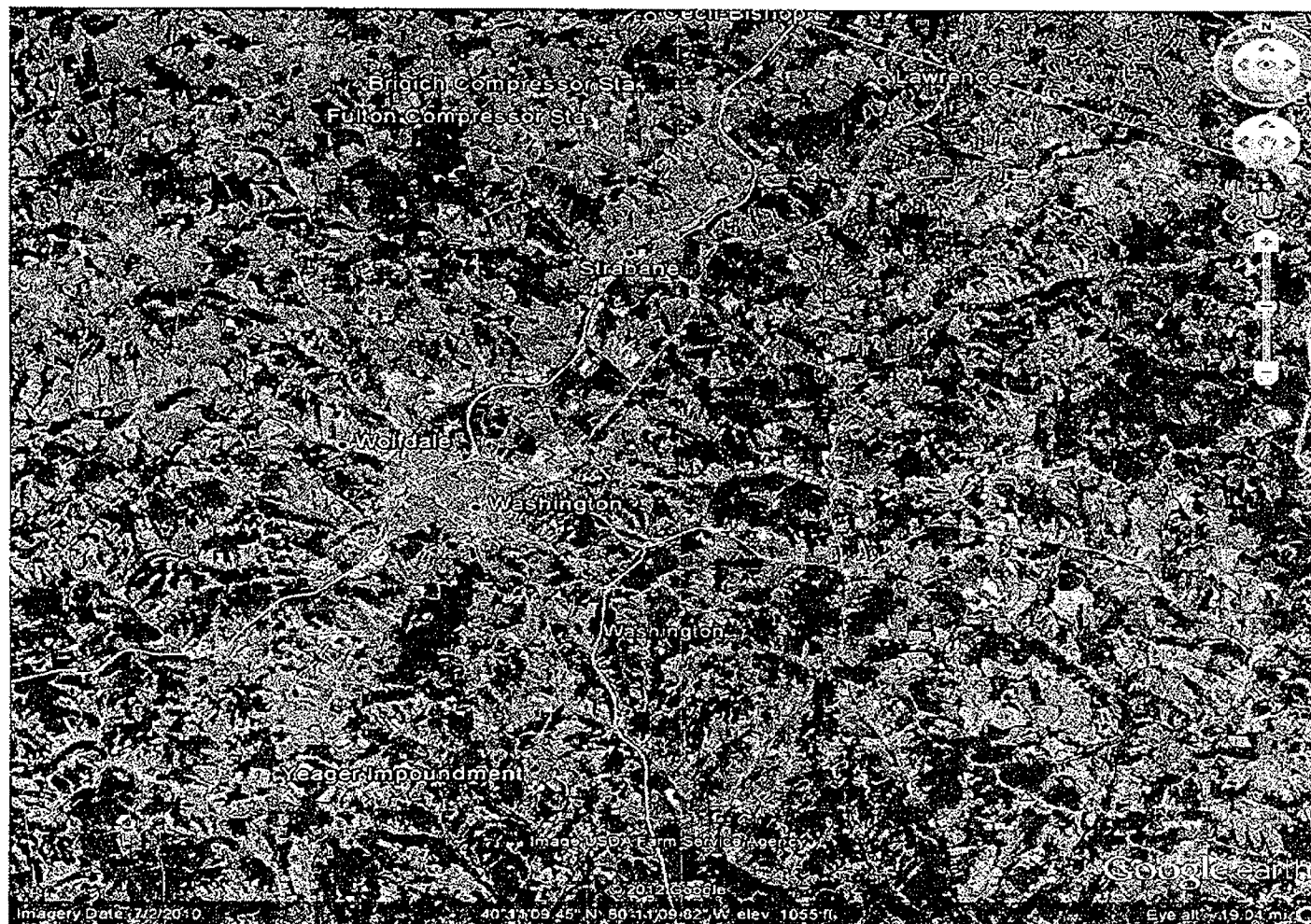
Region 3 Air Protection Division

2/9/2012

U.S. Environmental Protection Agency

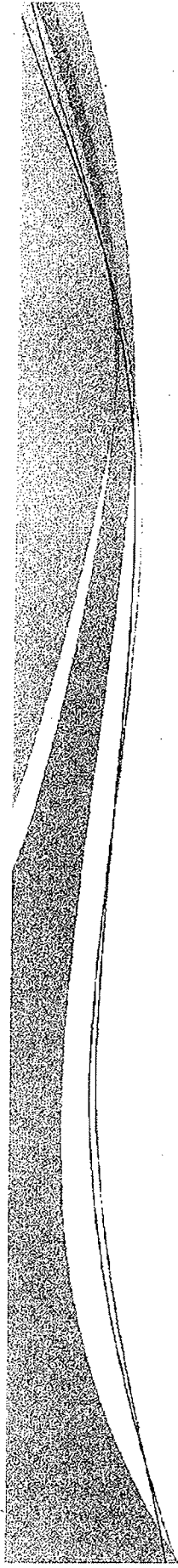


Sites in SW Penna. (Washington Co.)

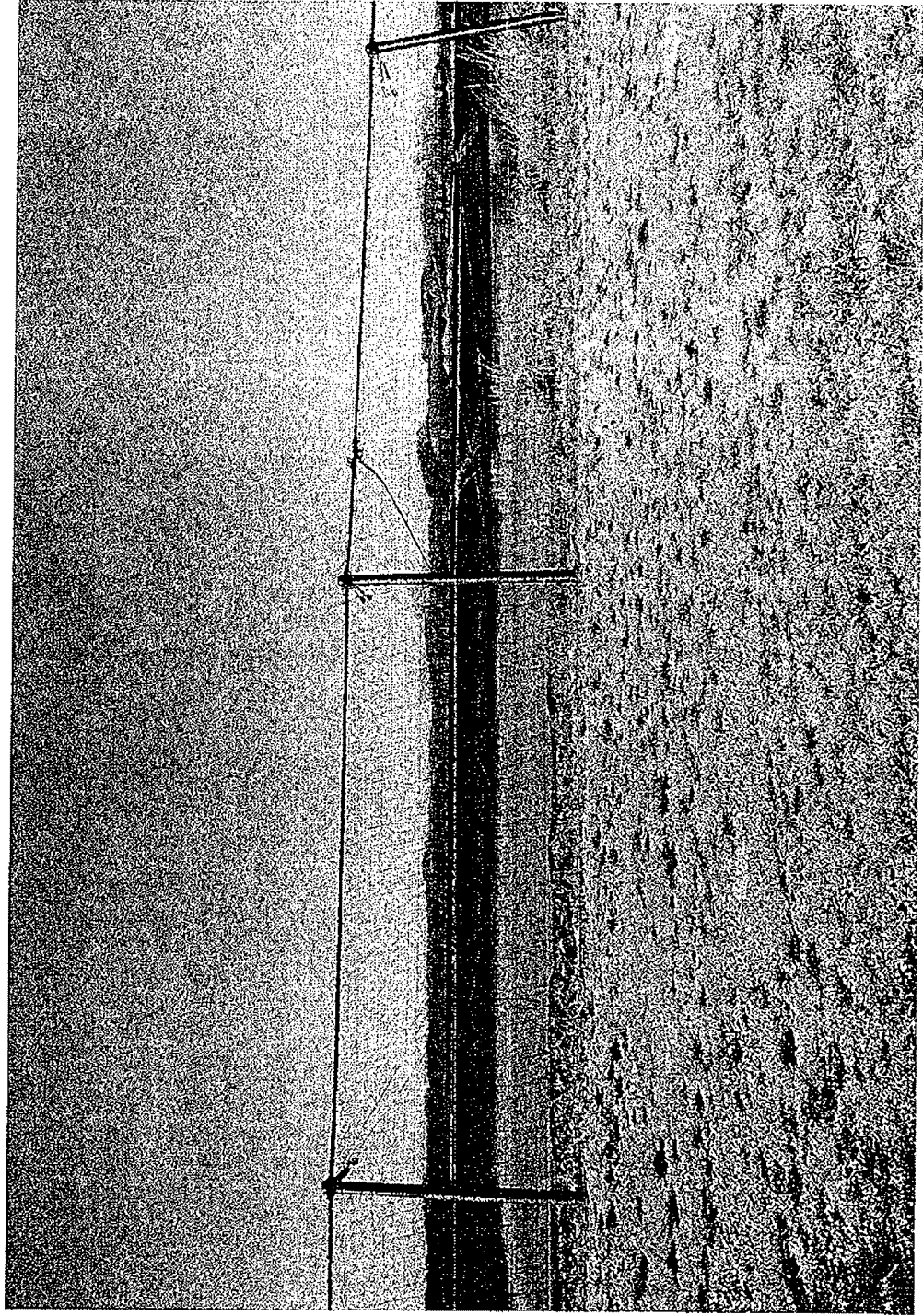


2/9/2012

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Yeager Impoundment



2/9/2012

U.S. Environmental Protection Agency



Yeager Impoundment

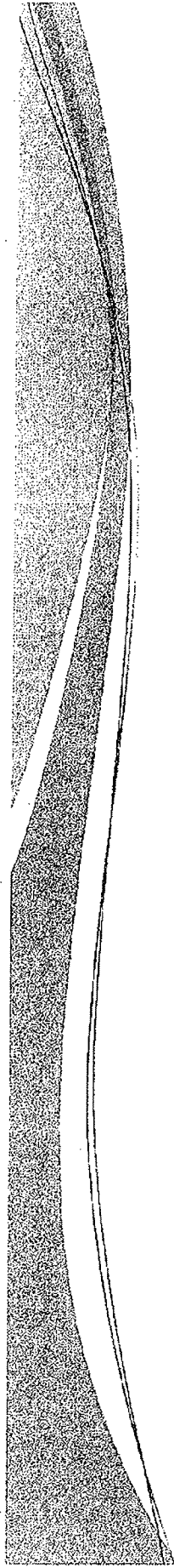
Location: Amwell Township (Washington County), PA

Technical Rationale:

- The Yeager Impoundment (Impoundment) is one of the larger open air containment pools used for storing “frack” water in southwest PA.
- The pool has multiple (as much as 10) aerators operating that are designed to “volatilize” off certain compounds in the water that during the fracking process.
- EPA (via criminal tip hotline) was the first to meet the residents who live next to and nearby the Impoundment.
- There are residents who live within 0.25 miles of impoundment and have expressed concern as to the air quality they breathe due to living in such close proximity to the Impoundment. Residents have mentioned to EPA during site visits that there are definite odors that are detected that they claim originate from the Impoundment.
- One family has abandoned their home b/c their teenage son has been stricken w/ many illnesses since the Impoundment was placed near their home. In addition, residents claim livestock “mysteriously” became sick and died after the Impoundment was put into operation.
- Samples were collected near the Impoundment during PADEP’s short term monitoring study. From what was detected with the canister samples during PADEP’s sampling, concentrations of certain VOC seemed higher than at other sites in the Marcellus Shale region as well as the two “control” sites that were used in the report. Even though the concentrations detected were higher, the sites where PADEP collected samples were not on the properties closest to the Impoundment.

Communication:

- A line of communication was already established with the residents which allowed provided the opportunity to obtain a verbal agreement for site access to operate monitoring equipment



Yeager Impoundment

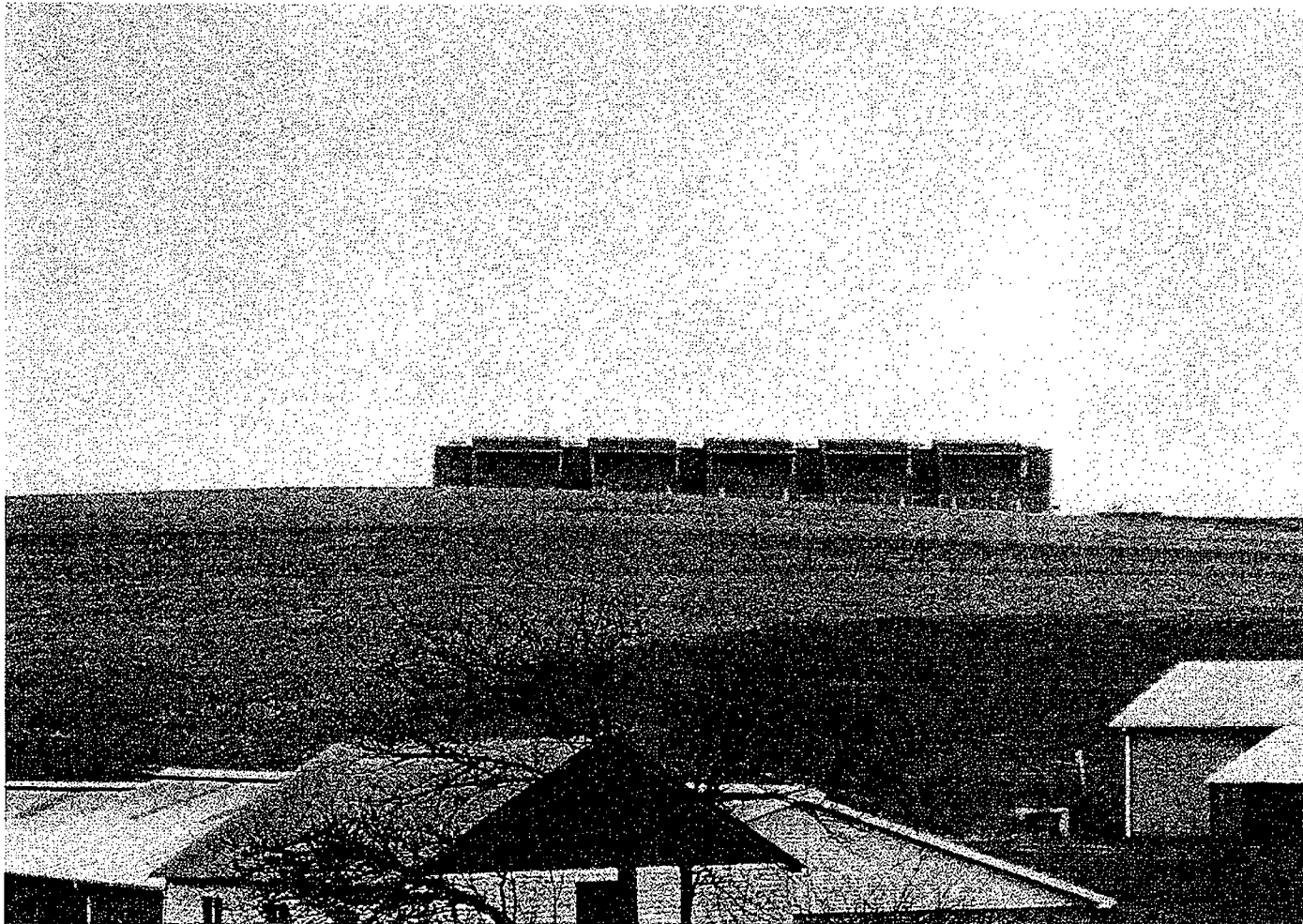


2/9/2012

U.S. Environmental Protection Agency

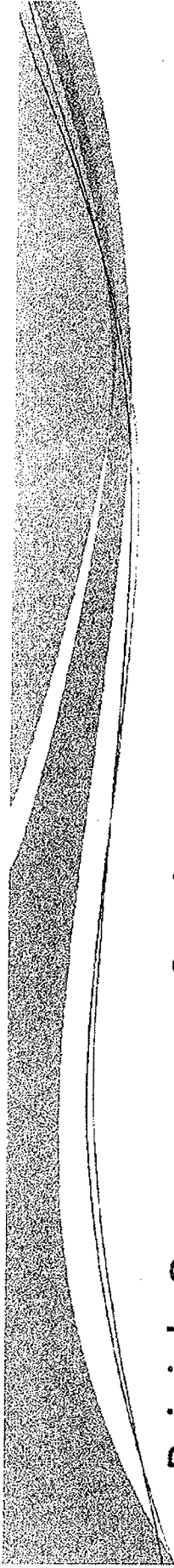


Potential Compressor Station Monitoring Locations

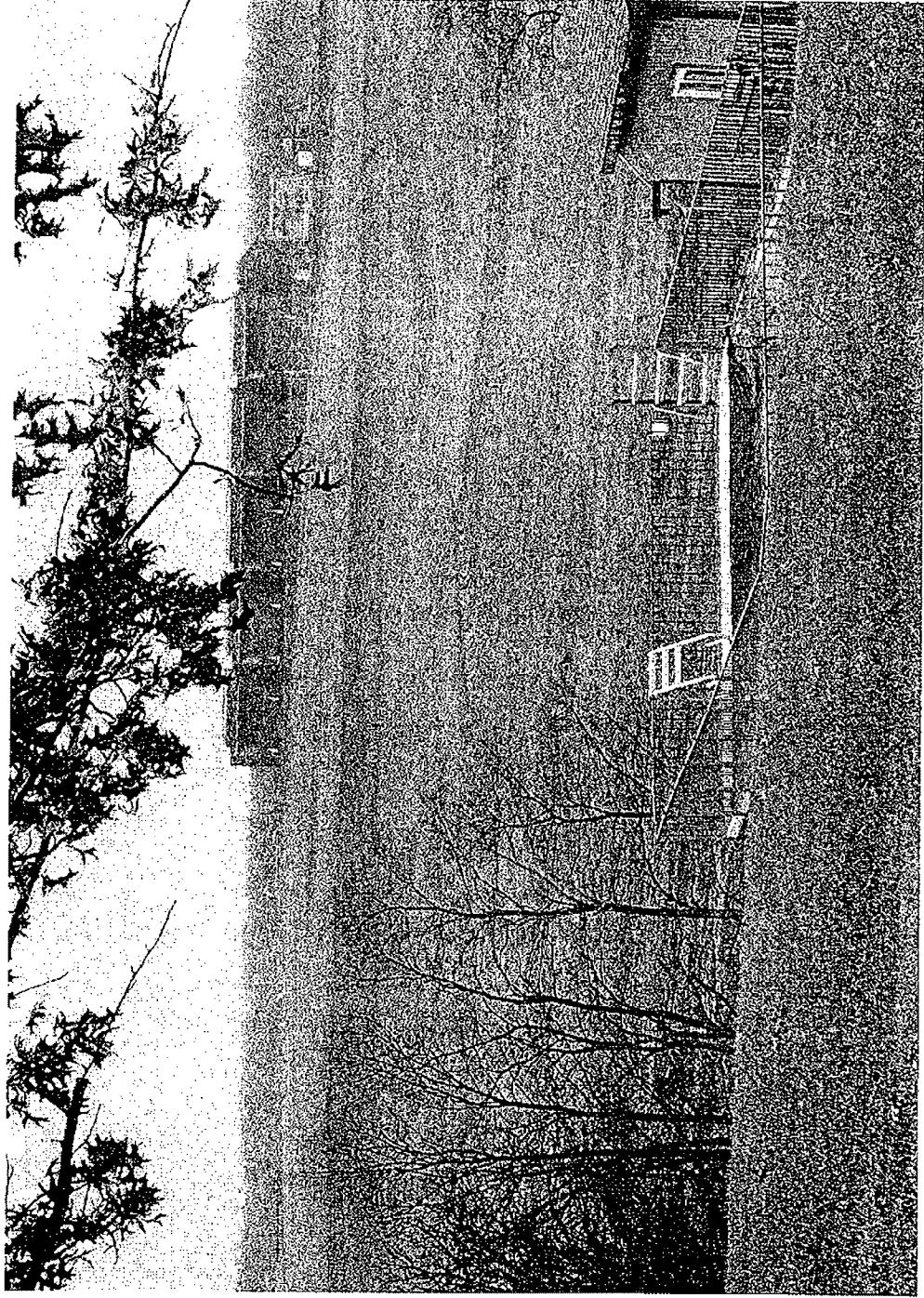


2/9/2012

U.S. Environmental Protection Agency



Brigich Compressor Station



2/9/2012

U.S. Environmental Protection Agency



Brigich Compressor Station

Location: Chartiers Twp., PA (Washington Co.)

Technical Rationale:

- Compressor in wide open space at local elevation maxima
- Neighborhood directly downwind East (about 1/3 mile)
- Single residence about 1500 feet North *
- Plenty of potential monitoring locations
- Facility is large
 - 5 compressors
 - 3 condensate tanks
- Flare in operation
- Two diesel 197hp generators at facility
- Dehydrator

Communication:

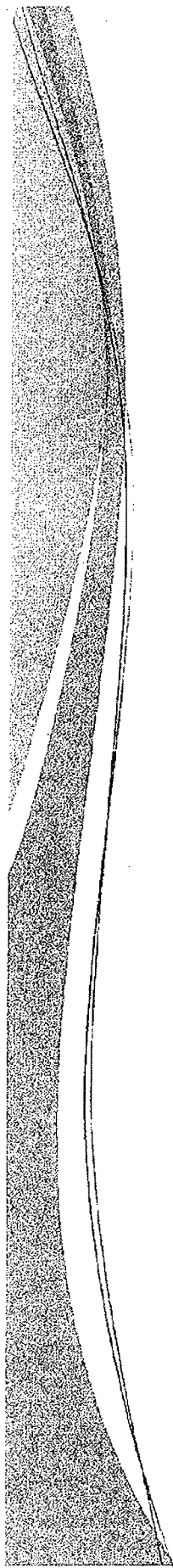
- *Ran into a resident during a recent trip out to SW PA and had a brief conversation about the compressor sta

Brigich Compressor Sta.

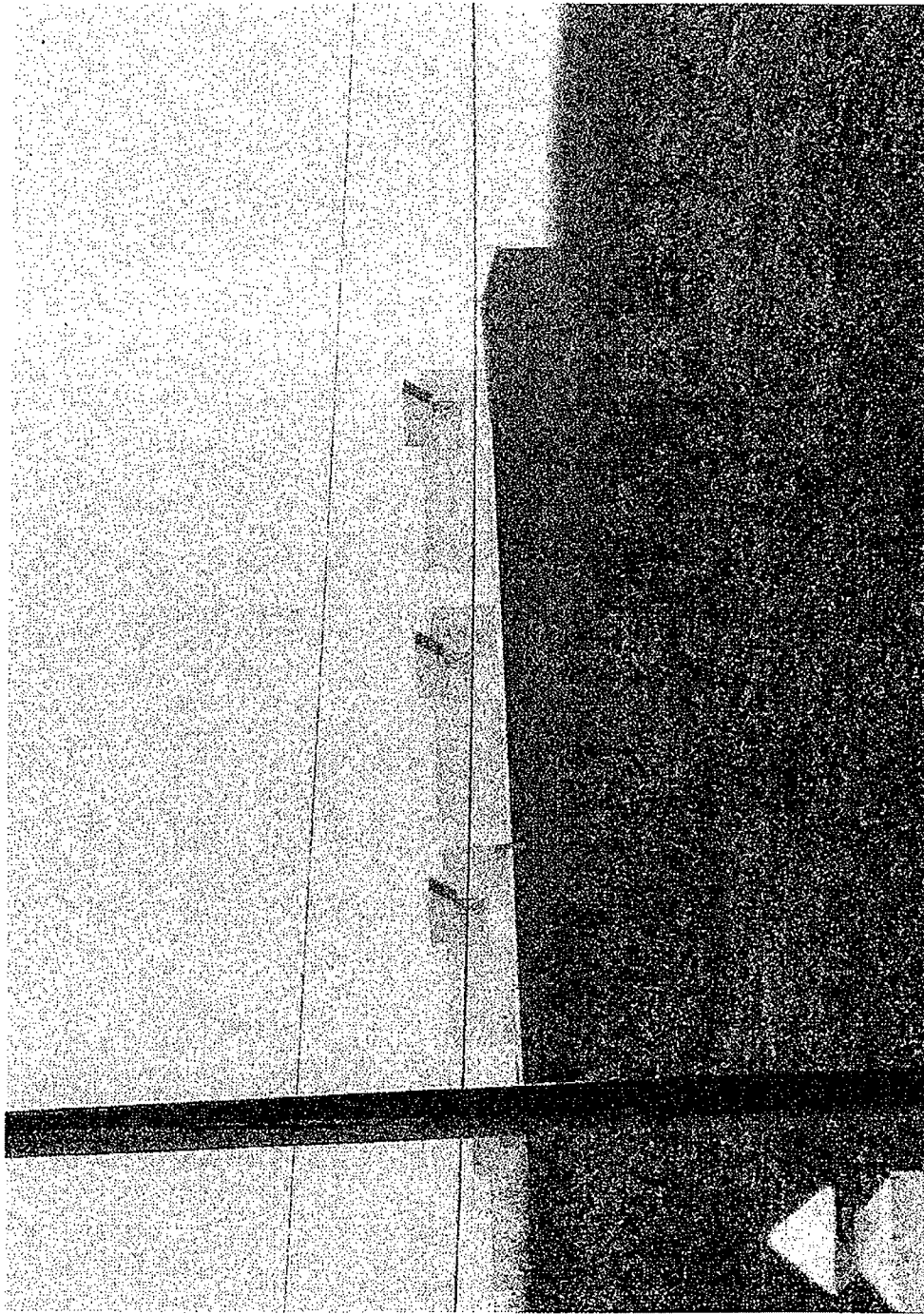


2/9/2012

U.S. Environmental Protection Agency



Fulton Compressor Station



2/9/2012

U.S. Environmental Protection Agency



Fulton Compressor Sta.

Location: Hickory Twp., PA (Washington Co.)

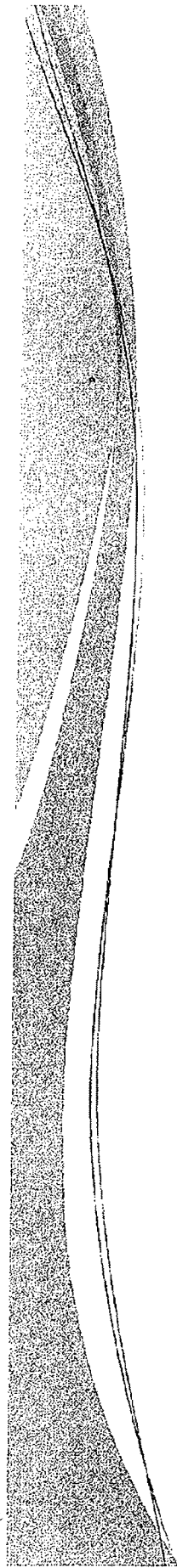
Technical Rationale:

- Station clearly seen from nearby properties
- Sits at local elevation maxima, up to 150' above nearby residences
- Nearby population in favored direction (N of compressor); closest home/property is ~850'
- Facility is large
 - 4 compressors
 - 2 condensate tanks
- Flare in operation

Communication

- No communication has been made with local residences around Fulton

From Marcellus-Shale.us: A recent visitor to the house next door reported bad odors and loud noise from this compressor station and wondered aloud, "How can people live next to this? What are they breathing?"



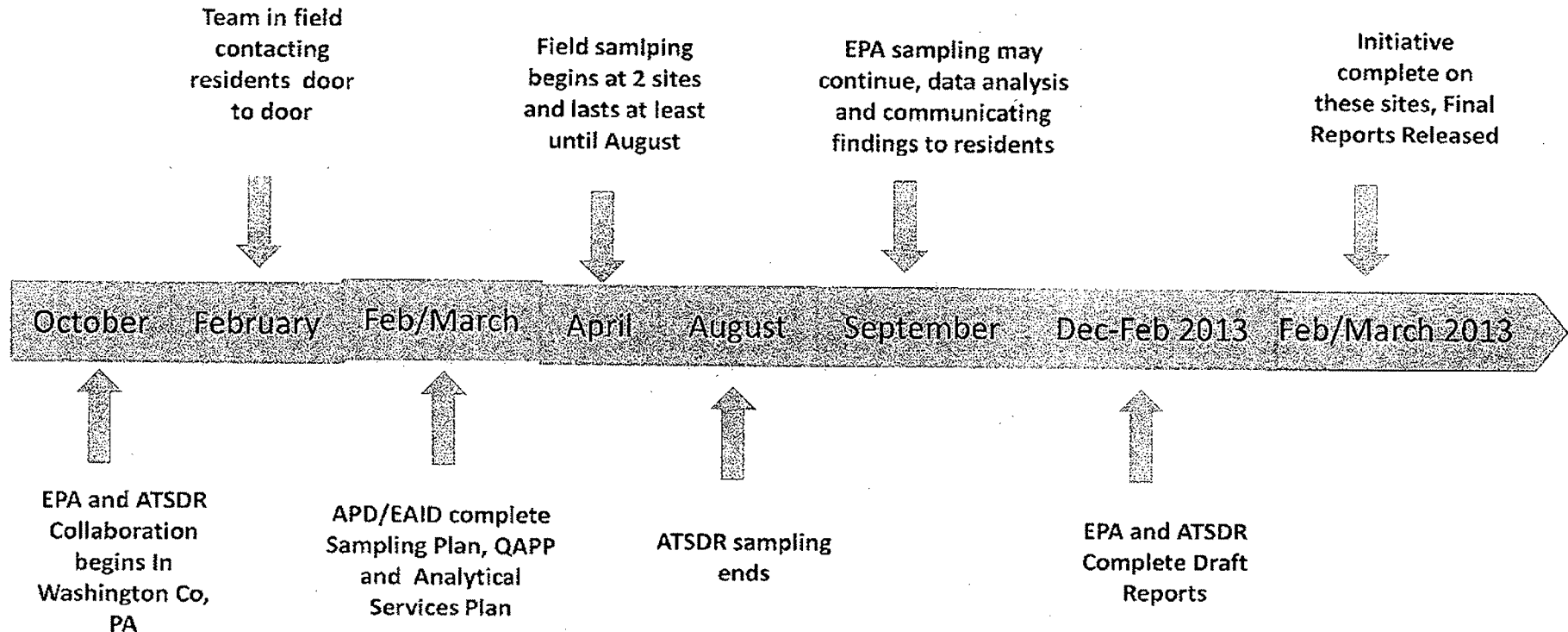
Fulton Compressor Station



2/9/2012

U.S. Environmental Protection Agency

EPA/ATSDR Natural Gas Ambient Air Monitoring Initiative



**Project timeline for the EPA/ATSDR
NGAAMI Initiative in Washington Co. Pa
February 9, 2012**



Re: did you want to share your Yaeger swale sampling data with us ?

Deborah Lindsey To: Lora Werner

11/15/2011 09:14 AM

Hi Lora

I'm out on leave all this week so I won't be attending the conference - I hope its worthwhile.

Attached is the analytical package and detection summary sheets for the Yeager Impoundment. Karl had asked if had analyzed for glycols and it doesn't look like we did.

My assessment of the data is that the levels are low which would not warrant any type of response as a removal. My issue is that there are constituents that I would not expect if the swale was just a surface runoff swale for rainwater. I think there is some residual that shows the impoundment at some time was leaking or still may be leaking. We sampled approximately 2-3 months after it was emptied and possibly just going back into operations at the time of sampling.

Based on your chart - data does show manganese, methane, arsenic and other low level of VOCs.

Rad data is in another file but came back as non-detect.

Would love your feedback.

Thanks

Debbie



Yeager Detection Summary.pdf J20177-1 UDS Level 2 Report Final Report.pdf

Debbie Carlson Lindsey
On-Scene Coordinator
USEPA Region 3
Wheeling Field Office
1060 Chapline Street
Wheeling, WV 26003
(304) 234-0249 (office)
(304) 281-2569 (cell)

Lora Werner

Bob and I headed your direction end of this wee...

11/14/2011 02:42:02 PM

From: Lora Werner/R3/USEPA/US
To: Deborah Lindsey/R3/USEPA/US
Date: 11/14/2011 02:42 PM
Subject: did you want to share your Yaeger swale sampling data with us ?

Bob and I headed your direction end of this week for the U of Pgh Shale conference, are you going to that by any chance? I think Ann is going to go. :) Lora

Lora Siegmann Werner, MPH
Senior Regional Representative
Agency for Toxic Substances and Disease Registry (ATSDR), Region 3